

**O-2016**  
**DEMONSTRATE SAFETY WHILE TAXIING**

**CONDITIONS**

You are a Mission Scanner trainee and must demonstrate safety techniques while taxiing in an aircraft.

**OBJECTIVES**

Demonstrate safety while taxiing, including airport signs and markings and flightline hand signals.

**TRAINING AND EVALUATION**

**Training Outline**

1. As a Mission Scanner trainee, knowledge of safety during taxiing is essential. *All crewmembers should assist the pilot while taxiing.* The pilot should brief each crewmember on what direction he or she should look out the aircraft. Sterile cockpit rules are in effect, so the crew should limit their conversation to the task at hand. Report conflicts to the pilot immediately, using the "clock position" method.

- a. Maintain adequate clearance from obstacles.
- b. When taxiing within 10 feet of obstacles stop, and then proceed no faster than a slow walk.
- c. If available, use marshallers or a "wing walker."
- d. Potential collisions with other aircraft or vehicles.
- e. Stay on or find the taxiway. At night or under low visibility conditions, assist the pilot. Some smaller airports do not mark their taxiways or the paint may be faded.

2. Runway markings are white and taxiways are yellow. Taxiway centerlines are solid yellow. Some taxiway boundaries are marked with double yellow lines while others have blue lights or cones.

3. Mandatory signs have a red background with a white inscription, and are used to denote an entrance to a runway or critical area where an aircraft is prohibited from entering without ATC permission:

- a. Holding position for a runway. Do not cross without ATC permission.  
May have a row of red stop bar lights, embedded in the pavement and extending across the taxiway at the runway holding position. When illuminated they designate a runway hold position: never cross a red illuminated stop bar, even if cleared by ATC.
- b. Holding position for approach area. Do not cross without ATC permission.
- c. Holding position for instrument landing system. Do not cross without ATC permission.
- d. No entry. Typically placed on a one-way taxiway or at the intersection of vehicle roadways that can be mistaken for a taxiway.

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**ILS**



4. Holding position marking for runway boundary. Four yellow lines: two solid and two dashed. The aircraft approaches the dashed lines and stops behind the solid lines (ensures you do not enter the runway). Do not cross without ATC permission. When exiting the runway, the pilot should cross the dashed lines to make sure the aircraft is completely clear of the runway.

May have yellow clearance bar lights embedded in the pavement to indicate a hold point. May have flashing yellow guard lights elevated or in-pavement at runway holding positions.



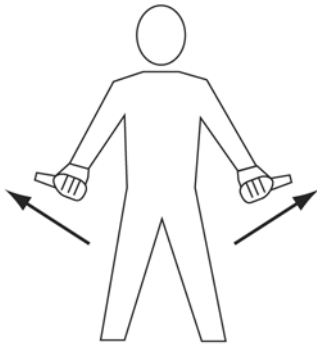
5. Location signs are used to identify either a taxiway (letters) or runway (numbers) on which an aircraft is located, or to provide a visual clue to the aircrew when the aircraft has exited an area:



6. Direction signs gave a yellow background with a black inscription.



7. Ground crew use hand signals to help direct pilots during taxi operations. The scanner should be familiar with these signals in order to increase safety during taxiing and parking:



Outward motion with thumbs.  
**PULL CHOCKS**



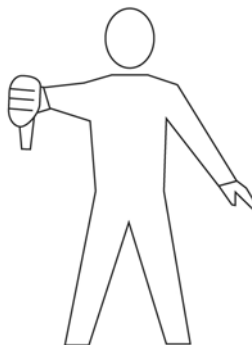
Circular motion of right hand at head level with left arm pointing to engine.  
**START ENGINE**



Raise arm, with fist clenched, horizontally in front of body, and then extend fingers.  
**RELEASE BRAKE**



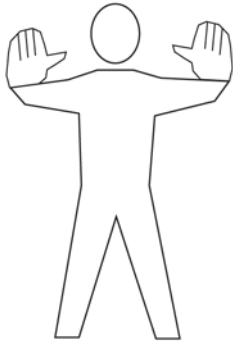
Thumb Up.  
**OK or YES**



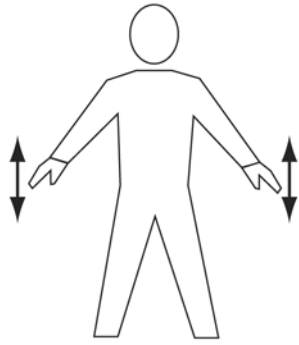
Thumb Down.  
**NOT OK or NO**



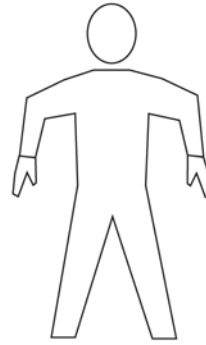
Arms above head in vertical position with palms facing inward. **THIS MARSHALLER**



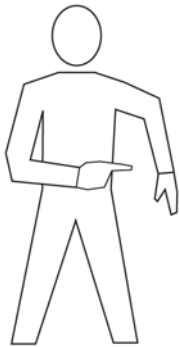
Arms a little aside, palms facing backwards and repeatedly moved upward and backward from shoulder height. **MOVE AHEAD**



Arms down with palms toward ground, then moved up and down several times. **SLOW DOWN**



Arms extended with forearm perpendicular to ground. Palms facing body. **HOT BRAKES**



Arms extended with forearm perpendicular to ground. Palms facing body. Gesture indicates right side. **HOT BRAKES - RIGHT**



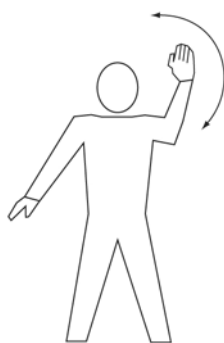
Arms extended with forearm perpendicular to ground. Palms facing body. Gesture indicates left side. **HOT BRAKES - LEFT**



Waiving arms over head. **EMERGENCY STOP**



Right or left arm down, other arm moved across the body and extended to indicate direction of next marshaller. **PROCEED TO NEXT MARSHALLER**



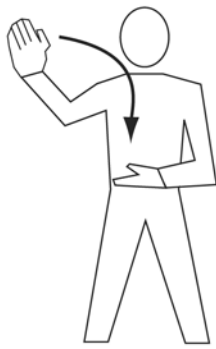
Point right arm downward, left arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn. **TURN TO THE LEFT**



Point left arm downward, right arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn. **TURN TO THE RIGHT**

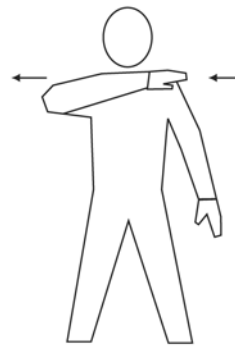


Arms crossed above the head, palms facing forward. **STOP**



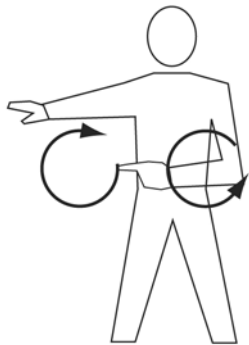
Make a chopping motion with one hand slicing into the flat and open palm of the other hand. Number of fingers extended on left hand indicates affected engine.

**FEATHER / FUEL SHUT-OFF**



Either arm and hand level with shoulder, hand moving across throat, palm downward.

**CUT ENGINES**



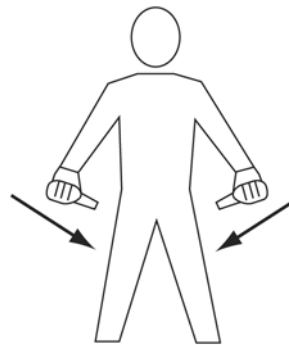
Make rapid horizontal figure-eight motion at waist level with either arm, pointing at source of fire with the other.

**FIRE ONBOARD**



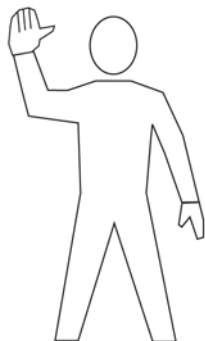
Raise arm and hand, with fingers extended horizontally in front of the body, then clench fist.

**ENGAGE BRAKE**



Inward motion with thumbs.

**INSERT CHOCKS**



Right arm raised with elbow at shoulder height with palm facing forward.

**MARSHALLER**

### Additional Information

More detailed information on this topic is available in Chapter 2 and Attachment 2 of the MART.

### Evaluation Preparation

**Setup:** Provide the trainee access to airport signs and markings (pictures may be used) and someone to give flightline hand signals.

**Brief Student:** You are a Scanner trainee asked about safety during taxiing.

### Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Discuss the safety rules used to avoid obstacles during taxiing.	P	F
2. Discuss the sterile cockpit rules and how you would point out an obstacle.	P	F
3. State the difference between runway and taxiway markings.	P	F
4. Identify mandatory signs and discuss their meaning.	P	F
5. Identify holding position markings and discuss their meaning.	P	F
6. Identify location and direction signs and discuss their meaning.	P	F
7. Recognize flightline hand signals.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.